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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,853	11/14/2003	Christopher Lynn Tycho Brown	16666-002001	2765

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EXAMINER	
PATEL, KAUSHIKKUMAR M	
ART UNIT	**PAPER NUMBER**
2188	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/713,853	BROWN, CHRISTOPHER LYNN TYCHO	
	Examiner	Art Unit	
	Kaushikkumar Patel	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to applicant's communication filed April 20, 2006 in response to PTO office action mailed January 24, 2006. The applicant's remarks and amendments to the claims were considered with the results that follow.

2. In response to the last office action, claims 1, 12, and 36 have been amended. Claims 6 and 37 have been canceled. No claims have been added. As a result, claims 1-5, 7-36 remain pending in this application.

3. The rejection of claims under 35 U.S.C. 101 is maintained.

Response to Arguments

4. Applicant's arguments with respect claim 1 rejected under 35 U.S.C. 101 has been fully considered but they are not persuasive. Claim 1, cites an article in line 1. From the current application specification paragraph [0004], an article is defined as "a machine readable medium". The machine-readable medium further defined as including software products, computer program products, see paragraph [0018]. Software and program products not embodied by computer readable storage medium are non-statutory and therefore unpatentable.

5. Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claim 1 recites the limitations "the storage area protection", "the formerly protected storage area" in lines 6 and 8. There is insufficient antecedent basis for these limitations in the claim.

Claims 4 and 7 recite the limitation "the storage area protection" in line 1. There is insufficient antecedent basis for this limitation in the claims.

Claim 10 recites the limitation "the information" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitations "the storage area protection", "the formerly protected storage area", and "the information" in lines 6, 8, 11, and 16. There is insufficient antecedent basis for these limitations in the claim.

Claims 20 and 21 recite the limitation "the formerly protected storage area" in line 2. There is insufficient antecedent basis for this limitation in the claims.

Claims 24-27 recite the limitation "the detection tool" in lines 3, 1, 1, and 2 respectively. There is insufficient antecedent basis for this limitation in the claims.

Claim 25 recites the limitation "the system" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 recites the limitation "the detection agent" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 15 and 18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 15, it is not clear what applicant meant by the phrase "the packet structure allows only a one-to-one connection", one-to-one connection of what or with whom or with what?

With respect to claim 18, it is not clear what applicant meant by from phrase "without altering the storage device", without altering content of storage device or without altering configuration of storage device (i.e. protection area)?

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1-16 and 18 are rejected under 35 U.S.C. 101. Claim 1, cites an article in line 1 and claim 18 cites machine-readable medium. From the current application specification paragraph [0004], an article is defined as "a machine readable medium". The machine-readable medium further defined as non-statutory subject matter such as software products, computer program products and statutory subject matter such as

storage device, see paragraph [0018]. Software and program products not embodied by computer readable storage medium are non-statutory and therefore unpatentable.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. An issue of public use or on sale activity has been raised in this application. In order for the examiner to properly consider patentability of the claimed invention under 35 U.S.C. 102(b), additional information regarding this issue is required as follows:

How hidden HPA is accessed and scanned? How remote forensics is performed and how the information is transferred (packet structure etc.)? The page explaining features and benefits of the product for sale (Pro Discover) refers to analyzing the protected area of the storage device, that indicates that applicant had possession of the claimed subject matter and examiner asking cooperation to obtain necessary information to determine the patentability of the invention.

Applicant is reminded that failure to fully reply to this requirement for information will result in a holding of abandonment.

14. Claims 1-2, 4-5, 7-8, and 17-20 rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention.

As per claims 1-2, 4-5, 7-8, and 17-20, documents obtained such as product description of ProDiscover for Windows, Letters of announcement indicating selling of product to public and order form indicating ProDiscover/NoWrite bundle software provides evidence that the product was for sale one year before the filing date of the invention. The product description inherently suggests anticipation of above claims, because analyzing hidden HPA sections inherently requires checking of whether the hard disk includes protected area and if presence is detected then in order to gain access requires removing protection, and removing protection requires execution of MAX ADDRESS command, use of product for Windows operating system inherently suggests HAL, GUI, virtual memory management and multitasking, because as evident from the definition of operating system from http://en.wikipedia.org Widows operating system supports all the functions of HAL, GUI, virtual memory management and multitasking.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1-5, 8-10, 17, and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Stevens (US 2002/0133702 A1) and (Assaf US 6,728,830 B1, Moore US 2004/0003135 A1, definition of Hardware abstraction layer (HAL) from

http://en.wikipedia.org and Document from MSDN library, Debugging Terminology, included as supporting documents).

As per claim 1, Stevens teaches, an article comprising a machine-readable medium embodying instructions that when performed by one or more machines results in operations comprising:

determining whether a storage device, in a data processing system running an operating system (Stevens paragraph [0060]), includes a protected area (paragraph [0009]), the operating system including a hardware abstraction layer (paragraph [0085], teaches use of Windows operating system, from definition of HAL Windows based operating system includes HAL);

removing the storage area protection of the storage device from within the running operating system and without rebooting the data processing system (taught as after an operating system has been booted, a calling process is run that desires access to the protected area (paragraph [0060]). These statements clearly indicate processing is executed within the running operating system, removing protection is taught in paragraph [0074]);

providing information derived from the formerly protected storage area to a data processing system detection tool (paragraph [0064], taught as data contained in the one or more service area is processed, paragraph [0084] teaches diagnosis and recovery);

wherein said determining and removing occur in a kernel mode of the data processing system (Steven teaches locating an interface that permits access to protected area to calling process (paragraph [0064]). As per present application

specification paragraphs [0022] and [0023], a kernel mode software module is a device driver that provides access to hard disk drive and an execution of SETMAX command removes protection. As per Assaf (US 6,728,820 B1), column 5, lines 10-25, the protected area is hidden from OS and BIOS is aware of the area and device drivers provides an interface (Stevens teaches locating an interface and providing an authentication process) to access the protected area using passwords. Also from terminology provided from MSDN library device drivers runs in kernel mode. Steven further teaches after authentication system firmware moves SETMAX location, see paragraph [0074] and as per present application specification SETMAX command is firmware command, paragraph [0031] and claim 25). Thus, Stevens inherently teaches determining and removing occur in kernel mode of data processing system.

As per claim 2, Steven teaches use Windows operating system (paragraph [0085]), Windows operating system provides function of graphical user interface (GUI), virtual memory management and multitasking (see definition of operating system from http://en.wikipedia.org).

As per claim 3, Stevens teaches checking whether the storage device supports a protected area specification (paragraph [0035]); and

identifying a protected storage capacity and an unprotected capacity of the storage device (paragraph [0059]).

As per claims 4 and 5, Stevens teaches removing storage area protection by resetting a storage address value (claim 4) by calling MAX ADDRESS command (paragraphs [0059] and [0074]).

As per claim 8, Stevens teaches scanning the formerly protected area and identifying file system information in formerly protected area (paragraphs [0081] and [0084]).

As per claim 9, Steven teaches system diagnosis (paragraph [0084]), which inherently teaches sending scanned information to diagnosis tool via transport medium, because diagnosis tool is run from system memory of from network, which requires sending information to running application via transport medium.

As per claim 10, Stevens teaches recovery of the drive (paragraph [0084]).

Claims 17 and 20-21 have the same claim scope as claims 1 and 8-10 and rejected under same rationales as applied to claims 1 and 8-10 above. The device drivers running under kernel mode provides access to hard disk {see [presented to support examiner's view of device drivers] Moore (US 2004/0003135 A1, paragraphs [0005] and [0006]) and Assaf (US 6,728,830 B1, column 5, lines 10-25)}. Steven teaches a calling process desiring an access to protected area looks for an interface (device driver) to gain access to protected area without rebooting system as explained in claim 1, a device driver must be loaded in system memory in order to be run, thus Stevens inherently teaches loading kernel mode software module (device driver) without rebooting system. Stevens also teaches removing (as per claim1) and closing protected area (paragraph [0075]), which teaches reversibly removing the storage area protection. (Shoji et. Al. US 2004/0216141 A1 also teaches utilizing device drivers running under kernel to provide access to hardware, see paragraph [0015]-[0017], Moore, Assaf and

Shoji are introduced here as evidential references to support Examiner's arguments regarding inherency of kernel mode software modules providing access to hardware).

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 24, 26, 27, 29, 32-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Adelstein et al. (US 2004/0260733 A1). {(Shoji et al. (US 2004/0216141 A1) and Moore (US 2004/0003135 A1) included as an evidential references)}.

As per claim 24, Adelstein teaches a system (figs. 1-3) comprising:

a data processing system detection tool (figs. 1-3, item 12, paragraph [0042]); and

a kernel mode software module operable to provide the detection tool with access to a protected area of a storage device in a data processing system when the kernel mode software module is loaded into the data processing system (Adelstein teaches forensic device (figs. 1-2, item 12) acquire images of hard disk (paragraph [0065]), including data not normally visible via operating system (host protected area of the disk). Accessing hard ware requires loading device drivers in kernel mode (see

Shoji paragraphs [0015]-[0017] and Moore paragraphs [0005]-[0006]), which inherently teaches loading a kernel mode software module providing an access of hard disk area to detection tool).

As per claim 26, Adelstein teaches forensic device can be directly connected to target device or remotely acquire data through agents (paragraphs [0003], [0044], [0057]). Thus, Adelstein teaches detection tool as stand-alone and client application.

As per claim 27, Adelstein teaches agents collecting information from target device (paragraph [0062]), and as explained with respect to claim 24, accessing hardware device requires use of device driver running in kernel mode of the processing system.

As per claim 29, Adelstein teaches local as well as remote information collection (paragraphs [0003], [0043], [0053], [0054]) and sending the information to detection device. Thus, Adelstein teaches selecting from group of communications medium and sending information using packets (paragraph [0048]).

As per claim 32, Adelstein teaches the detection tool is computer forensic tool (paragraph [0002]).

As per claim 33, accessing hardware (such as hard disk) require use of device driver, Adelstein teaches scanning hard disk (paragraph [0065]), thus Adelstein teaches device driver.

As per claim 34, Adelstein teaches Windows operating system (paragraph [0062]. Windows Deriver Model (WDM) is a component of Windows operating system and thus Adelstein teaches WDM.

As per claim 35, Adelstein teaches hard disk with data area hidden from operating system (host protected area definition) (paragraph [0065]) and ATA hard disk supports such specification.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens (US 2002/0133702 A1) as applied to claims 1-5 above, and further in view of Rothman et al. (US 2004/0158698 A1).

As per claim 7, Stevens teaches limitations of claims 1-4 as explained above and further teaches closing the protected area (paragraph [0075]). Stevens fails to teach closing protected area by rebooting the system. Rothman teaches that SETMAX ADDERSS command removes protection of storage device volatilely, and hardware reset returns maximum address to last non-volatile settings (Rothman paragraph [0033]). It would have been obvious to one having ordinary skill in the art at the time of the invention to use system reboot as taught by Rothman in system of Stevens to restore storage area protection after accessing the protected area.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

22. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens (US 2002/0133702) as applied to claim 17 above, and further in view of Adelstein et al. (US 2004/0260733 A1)

As per claim 18, Stevens teaches limitations of claim 17, but fails to teach dynamically loading software module. Adelstein teaches dynamic loading of the software (paragraph [0047]). (communicative coupling is inherent because without communicative coupling data transfer is not possible). It would have been obvious to one having ordinary skill in the art at the time of the invention to dynamically load detection software as taught by Adelstein in the system of Stevens to collect data from target device without altering the information stored (paragraph [0048], Alderstein teaches by installing software on target device changes data stored in target device).

As per claim 19, use of optical disk as a machine readable storage medium is known in the art because it stores more data than floppy disk and easier to handle.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

24. Claim 1, 9-14 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adelstein et al. (US 2004/0260733 A1) and Stevens (US 2002/0133702 A1). {(Assaf US 6,728,830 B1, Moore US 2004/0003135 A1, definition of Hardware abstraction layer (HAL) from http://en.wikipedia.org and Document from MSDN library, Debugging Terminology, included as supporting documents)}.

As per claim 1, Adelstein teaches an article (figs. 1-4) comprising machine-readable medium embodying instructions that when performed by one or more machines results in operations comprising:

provides information derived from the protected storage area to a data processing system detection tool (Adelstein, paragraphs [0005], [0021] and [0069], teaches a detection tool (directly connected to target device or remotely connected via local or wide area network) (a forensic device), which acquires images from portion of disk space hidden from operating system (host protected area of disk), which inherently teaches accessing a protected area of storage device);

Adelstein explicitly failed to teach removing the storage area protection. Stevens teaches determining whether a storage device, in a data processing system running an operating system (Stevens paragraph [0060]), includes a protected area (paragraph [0009]), the operating system including a hardware abstraction layer (paragraph [0085], teaches use of Windows operating system, from definition of HAL Windows based operating system includes HAL);

removing the storage area protection of the storage device from within the running operating system and without rebooting the data processing system (taught as after an operating system has been booted, a calling process is run that desires access to the protected area (paragraph [0060]). These statements clearly indicate processing is executed within the running operating system, removing protection is taught in paragraph [0074]);

wherein said determining and removing occur in a kernel mode of the data processing system (Steven teaches locating an interface that permits access to protected area to calling process (paragraph [0064]). As per present application specification paragraphs [0022] and [0023], a kernel mode software module is a device driver that provides access to hard disk drive and an execution of SETMAX command removes protection. As per Assaf (US 6,728,820 B1), column 5, lines 10-25, the protected area is hidden from OS and BIOS is aware of the area and device drivers provides an interface (Stevens teaches locating an interface and providing an authentication process) to access the protected area using passwords. Also from terminology provided from MSDN library device drivers runs in kernel mode. Steven further teaches after authentication system firmware moves SETMAX location, see paragraph [0074] and as per present application specification SETMAX command is firmware command, paragraph [0031] and claim 25). Thus, Stevens inherently teaches determining and removing occur in kernel mode of data processing system.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use method of removing storage area protection without rebooting

system as taught by Stevens in the system of Adelstein to scan the protected area information without rebooting system to increase the speed of the system.

As per claim 9, Adelstein teaches sending information derived from the protected area over a transport medium to detection tool (paragraph [0043]).

As per claim 10, Stevens teaches recovery of the drive (paragraph [0084]).

As per claim 11, Adelstein teaches selecting the transport medium from a group including a peripheral device interface medium and a network communications medium (paragraphs [0043], [0044], [0053] and [0054], taught as forensic device can be connected to client machine via local area networks, wide area networks or directly connected and interrogation agents sends collected data to forensic device)

Claim 12, is similar in scope with combined claims of 1 and 9-11. Thus claim 12 is rejected under same rationales as applied to claims 1, 9-11 above (As Adelstein mentions collecting Ethernet packet information (paragraph [0048] teaches sending information via packet. Adelstein also teaches sending information to forensic device through LAN, WAN or directly connected to target machine, teaches sending information to PCI or network communication medium).

As per claim 13, Adelstein teaches sending information using universal serial bus (USB) (paragraph [0054]) and Internet Protocol (IP) (paragraph [0056]). Thus, Adelstein teaches packet structure usable over USB and IP.

As per claim 14, Adelstein teaches using host name and target IP address. (Data packets are known to include packet identifier, sender identification and destination identification (detection-tool identification)).

Claim 36, is similar in scope to claims 1 and 9-11. As per claim 36, Adelstein teaches a remote or local detection device (paragraphs [0003], [0005]) with multi-transport medium (figs. 1-3, paragraphs [0043], [0053] and [0054]) and provides live imaging (paragraph [0065]). Stevens teaches removing storage area protection without rebooting system as explained with respect to claim 1 above. Thus, claim 36 is rejected under same rationales as applied to claims 1, 9-11 and explanation provided above.

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adelstein et al. (US 2004/0260733 A1) and Stevens (US 2002/0133702 A1) as applied to claims 1, 9-14 above, and further in view of Kinstler (US 2003/0107987 A1) and JOY et al. (US 2002/0093982 A1).

As per claim 15, Adelstein and Stevens teaches all limitations of claim 12, but fails to teach one-to-one connection. Kinstler teaches one-to-one connection between nodes (paragraph [0005]). It would have been obvious to one having ordinary skill in the art to provide one-to-one connection as taught by Kinstler in the system of Adelstein and Stevens for faster data transfer (see Kinstler paragraph [0005]).

As per claim 16, Adelstein and Stevens teaches all limitations of claim 12, but fails to teach small packets. JOY teaches smaller packets (paragraph [0003]). It would have been obvious to one having ordinary skill in the art to use small packets as taught by JOY in the system of Adelstein and Stevens for faster data transfer (or less latency) (paragraph [0003]).

Claim 30 is similar in scope with claims 14-16, so claim 30 is rejected under same rationales as applied to claims 14-16 above.

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

28. Claims 25 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adelstein et al. (US 2004/0260733 A1) as applied to claim 24 above, and further in view of NIST (National Institute of Standards and Technology) Hard Disk Write Block Tool Specification.

As per claims 25 and 31, Adelstien teaches limitations of claim 24, but fails to teach write blocker. As per requirements of NIST, a write blocker is required in forensics to protect hard disk from unintended modification (see page 3, scope) and requirements of write blocker allows kernel mode software module with read command to operate (see page 5, section 5.1). Hardware and Software are logically equivalent and while

hardware is costly to implement but provides faster execution, while software is cheaper. It would have been obvious to one having ordinary skill in the art at the time of the invention to use write blocker in system of Adelstein to meet the requirements of NIST.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaushikkumar Patel whose telephone number is 571-272-5536. The examiner can normally be reached on 8.00 am - 4.30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kmp

Kaushikkumar Patel
Examiner
Art Unit 2188

6/27/06

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER